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Party support, values, and perceptions of electoral integrity

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Abstract: The legitimacy of the electoral process is crucial for the consolidation of democracy. We here focus on individual perceptions of electoral integrity (IPEI) and seek to understand what factors can explain different degrees of IPEI. In particular, we use the sixth wave of the World Values Survey (2010–2014) to examine how anti-authoritarian values affect individuals' directional bias, driven by political party support, in evaluating electoral integrity. The results show that IPEI do depend on an interaction of political party support and the strength of anti-authoritarian values. However, the addition of the latter does not lead to a convergence of integrity evaluations among winners and losers, as may be expected under the assumption that anti-authoritarian values drive voters to more carefully monitor and evaluate the electoral process. Instead, it leads to greater polarization between electoral winners and losers. We explain the result with reference to the motivated reasoning literature on biased information processing: while anti-authoritarian convictions lead people to obtain more information on the electoral process, their political leanings bias their reading of this information, which in effect leads to stronger polarization in perceptions.

Keywords: elections; party support; political values; motivated reasoning; World Values Survey

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Party support, values, and perceptions of electoral integrity

The legitimacy of the electoral process is crucial for the consolidation of democracy. Citizens who doubt the freeness and fairness of elections show lower levels of political support (Norris, 2014), are less likely to turn out to vote (Birch, 2010; Carreras & Irepoglu, 2013), and more likely to participate in protests or even electoral violence (Norris, Frank & Martínez i Coma, 2015). But research on which factors affect citizens' perceptions of electoral integrity has only emerged recently, and this research has mainly focused on contextual determinants such as the conduct of institutions and the quality of democracy more generally (e.g. Birch, 2008; Kerr, 2013; Norris, 2014; Rosas, 2010).

In contrast, little attention has been paid to individual-level determinants, beyond their inclusion as control variables. Besides socio-demographic background, such control variables invariably include political partisanship. And here, the reported results show a remarkably robust effect on perceptions of electoral integrity: supporters of governing parties evaluate electoral integrity to be significantly higher than supporters of the opposition. Illustrative here are the Austrian presidential elections held in May 2016, whose “losers” questioned the legitimacy of the process, or the British EU Referendum of June 2016, in whose wake the “winners” voiced concern that the losers are not going to acknowledge the validity and legitimacy of the vote.

This paper examines the winner–loser gap in more detail. Going beyond the “sore loser” hypothesis usually advanced to explain the gap, we examine the effect of both political leanings and anti-authoritarian values: individuals who are more invested in the electoral process – whether electoral losers or winners – likely evaluate its integrity differently than those who do not champion democracy over authoritarian forms of government. We show that perceptions of electoral integrity in fact depend on an interaction between party support and the strength of anti-authoritarian values. However, the addition of the latter does not lead to a convergence of

integrity evaluations among winners and losers, as may have been expected, but to greater polarization. We explain this result with reference to the motivated reasoning literature on biased information processing: while anti-authoritarian convictions motivate people to obtain more information on the electoral process, their political leanings bias their reading of this information, which in effect leads to stronger polarization in perceptions. We demonstrate the interaction effect with data from the sixth wave of World Values Survey (2010–2014), covering 41,395 respondents in 29 diverse electoral democracies.

Psychological explanations for the winner–loser gap

The winner–loser gap in perceptions of electoral integrity is remarkably robust: losers consistently evaluate electoral integrity more negatively than winners in Africa (Kerr, 2013; Moehler, 2009), Asia (Cho & Kim, 2015), Eastern Europe (McAllister & White, 2015; Rose & Mishler, 2009), Latin America (Cantú & García-Ponce, 2015), North America (Bowler, Brunell, Donovan & Gronke, 2015; Sances & Stewart III, 2015), as well as across continents (Anderson, Blais, Bowler, Donovan & Listhaug, 2005; Birch, 2008; Norris, 2014). However, as most studies do not focus on the winner–loser gap per se – with partisanship in fact acting mostly as control variable – the theoretical background is often only discussed in passing.

Explanations for the winner–loser gap in perceptions of electoral integrity lean on those for the winner–loser gap in other measures of political support, such as evaluations of government performance or satisfaction with democratic performance. Some studies suggest that electoral losers are more likely to be critical of the government – and hence of the electoral procedure – because, in contrast to winners, they are less likely to excuse imperfections (Moehler, 2009). Losers’ evaluations are hence more likely to accurately reflect the fairness of the electoral process, and the gap mainly arises because winners are not critical enough. Most frequently, however, reference is made to the “sore loser effect” outlined by Anderson et al. (2005), which

argues that electoral losers are dissatisfied with the election results and hence see the political system generally in a worse light than electoral winners do. If perceptions of electoral integrity are seen as another measure of political support (but see Atkeson, Alvarez & Hall, 2015) it is the frustrated losers who evaluate the process worse than they otherwise would and hence those who are driving the gap.¹

Taking a cognitive approach, the gap may be explained with motivated reasoning. Motivated reasoning describes how goals or motivations affect the way information is being processed: different goals manifest in different information-processing strategies to obtain the goals, including strategies of accessing, constructing, and evaluating beliefs (Kunda, 1990; for a recent review, see Leeper & Slothuus, 2014). Most relevant to the winner–loser gap are directional goals. In reasoning motivated by directional goals, individuals feel the need to accept information that confirms (confirmation bias) and to reject information that disconfirms (disconfirmation bias) their prior beliefs and actions. Information processing driven by directional goals is biased in at least three ways (see also Lebo & Cassino, 2007): individuals selectively expose themselves to confirming information, for example through partisan media; they question the accuracy or downplay the importance of dissonant but not of consonant information; or they reinterpret dissonant information to align with their prior attitudes. For example, in Taber and Lodge’s (2006) experiment, participants seek out confirmatory evidence when free to select information sources, uncritically accept arguments supporting their prior beliefs, and counter-argue arguments that contradict them. Lebo and Cassino (2007), too, show that partisan groups selectively discount or consider information when asked for presidential approval ratings, and Rudolph and Popp (2007) demonstrate that respondents motivated by directional goals are least

¹ Although one may also argue that euphoric winners also evaluate the process better than they otherwise would.

ambivalent in forming opinions. Directly focusing on the fairness of procedures, Doherty and Wolak (2012) show that student participants in their experiment are more likely to perceive decision-making procedures to be fair when they agree with the outcome than when they disagree. Translated to perceptions of electoral integrity, both winners and losers differ from the perceptions they would have held in the absence of political leanings.

Another important goal examined in motivational reasoning, however, has so far not been discussed in relation to the winner–loser gap, although they have been repeatedly found to mitigate the effect of directional goals: accuracy goals (see Kunda, 1990). Accuracy goals describe the need to reach a *correct* conclusion, which motivates individuals to seek out and carefully consider relevant evidence. As they evaluate different sources of information that both confirm and disconfirm their prior directional beliefs, they invest more cognitive effort into the reasoning process. But what drives accuracy goals in evaluations of electoral processes? Prior research on political attitudes has looked at personal dispositions to accuracy such as conscientiousness (e.g. Nir, 2011) or political knowledge (e.g. Kam, 2005; Taber & Lodge, 2006). We examine instead whether and to what extent anti-authoritarian values moderate directional reasoning when it comes to electoral integrity. In particular, we would expect that respondents with strong anti-authoritarian values should care more about electoral integrity: respondents' rejection of governments that have not been democratically elected implies that they care about democracy and, with it, its mainstay of fair elections. Hence, those who oppose authoritarian regimes should be more likely to carefully monitor and evaluate the electoral process. This hypothesis is supported by psychological research which shows that an issue is perceived to be personally important (attitude involvement) if it is linked to relevant values (value relevance) (Boninger, Krosnick & Berent, 1995; Thomsen, Borgida & Lavine, 1995). Attitude involvement, in turn, increases one's motivation to arrive at accurate evaluations: highly involved re-

spondents process information more carefully and objectively, even in the presence of competing directional goals (Chaiken, Liberman & Eagly, 1989; Petty & Cacioppo, 1986). That is, we would expect that respondents with strong anti-authoritarian values should be less influenced by their political leanings and hence more accurate in evaluating the integrity of elections.

However, in this paper we demonstrate that rather than mitigating directional goals, holding anti-authoritarian values exacerbates them: among those with strong anti-authoritarian values, the difference in perceptions of electoral integrity between winners and losers is even larger than among those with weaker anti-authoritarian values. We explain this with the cognitive-motivational model of political information processing advanced by Lavine et al. (2000). While this model, too, holds that value relevance increases attitude involvement, it goes on to argue that involvement indeed diminishes the motivation to arrive at accurate conclusions. According to the model, value-relevant attitudes crystallize and strengthen, and over time become associated with issue-relevant knowledge. Information seeking shifts from being relatively objective to being biased towards information that supports people's prior attitudes, in this case party support. That is, the three selective information-seeking strategies described with regard to directional goals above – selective exposure, selective judgment, and selective perception – also pertain to accuracy goals where the latter is affected by value-driven attitude involvement. Underlying values ensure that biased issue-relevant knowledge is more accessible, heightening directional reasoning. The model is consistent with psychological research showing that involvement produces both biased information processing (Howard-Pitney, Borgida & Omoto, 1986) as well as resistance to change (Zuwerink & Devine, 1996). Figure 1 illustrates the sequential process described in both hypotheses.

[Figure 1 about here]

To summarize, we can formulate three hypotheses on the link between party support, values, and perceptions of electoral integrity. Figure 2 illustrates the observable implications of these hypotheses with the expected marginal effect of winning or losing on perceptions of electoral integrity: a zero denotes that winners and losers should not differ significantly in their perceptions, that is, there should be no gap. A plus denotes that the respective group should perceive electoral integrity to be significantly better and a minus significantly worse than the other; that is, there should be a gap.

First, the sore loser hypothesis common in the political science literature considers the effect of party support only, ignoring any effect of underlying values. According to this hypothesis, directional goals drive perceptions of electoral integrity such that people process information selectively to align with their political preferences: winners perceive electoral integrity to be better than they otherwise would (in Figure 2, +) while losers perceive it to be worse (-).

The other two hypotheses both take values into account but arrive at opposite conclusions. Both agree that value relevance increases attitude involvement. The accuracy hypothesis goes on to argue that attitude involvement leads to more accurate information processing, such that people who care about the electoral process as indicated by their anti-authoritarian values converge in their assessment of electoral integrity, no matter their political preferences (in Figure 2, zero). The directional goals of those who do *not* care about the electoral process, however, are not mitigated, leading to the familiar polarization in perceptions of electoral integrity between winners and losers.

[Figure 2 about here]

In contrast, the directionality hypothesis expects that value relevance and attitude involvement do not mitigate but exacerbate directional information processing: people who do care about

the electoral process diverge in their assessment of electoral integrity according to their political preferences (+/-), while those who do not care are also not motivated to assess electoral integrity in line with their political preferences and hence converge in their perceptions (0). The following sections assess the empirical evidence.

Data and methods

Individual-level variables

The dependent variable of interest is individual-level perceptions of electoral integrity (IPEI). We follow Norris (2014) in defining electoral integrity as internationally agreed-upon values, principles, and standards of the electoral cycle as a whole, including the campaign period, the election day itself, and its aftermath.² Perceptions of electoral integrity, then, are the extent to which these standards are identified by different individuals as having been either met or violated.

Our study uses the latest World Values Survey data (WVS, 2010–2014), which includes a battery of questions designed to measure IPEI at different stages in the electoral process. The disaggregated measure of IPEI allows for the development of a more reliable indicator than those based on a single item, as is the case in other comparative surveys. In addition, the diverse range of countries included in the WVS – from Algeria to the Netherlands to Uruguay – increases the external validity of the findings.

With regard to *electoral integrity*, respondents were asked “In your view, how often do the following things occur in the country’s elections?”

² For a discussion of different approaches to the concept of electoral integrity, see Birch (2011).

- a) Votes are counted fairly;
- b) Opposition candidates are prevented from running;
- c) TV news favours the governing party;
- d) Voters are bribed;
- e) Journalists provide fair coverage of elections;
- f) Election officials are fair;
- g) Rich people buy elections;
- h) Voters are threatened with violence at the polls;
- i) Voters are offered a genuine choice at the ballot box.

Responses to each item were coded from “Very often” (1) to “Not at all often” (4).

The nine items each show varying degrees of non-response. To minimize data loss and avoid introducing bias through listwise deletion (King, Honaker, Joseph & Scheve, 2001), we use propensity score matching to impute missing values (Austin, 2011; Bacher, 2002). A principal component analysis (PCA) shows that the items load on two different dimensions which we call, following Norris (2013a), electoral integrity (items a, e, f, and i) and electoral malpractice (items b, c, d, g, and h) (Table A1, online appendix).³ However, only the electoral integrity dimension is stable in all countries. We hence use only this dimension as dependent variable, combining the four items into an index. To do so, we first reverse the coding such that a higher

³ In addition to the empirical findings of the PCA, there are also theoretical reasons for distinguishing the two components: electoral integrity refers to the electoral process generally while not necessarily implying the intentional intervention of (state) power. The items loading on electoral malpractice do, in contrast, all refer to intentional use of financial, physical, or state power to influence elections. Variance in the presence of latter may also be the reason why the malpractice index varies across countries while the integrity index is stable. Note that this distinction parallels those by others in the study of electoral fairness. For example, Birch’s (2011) definition of electoral malpractice refers to “the manipulation of electoral processes and outcomes so as to substitute personal or partisan benefit for the public interest” only, that is, to intentional intervention. Elklit and Svensson (1997) distinguish between the fairness and freedom of elections, with electoral integrity mainly aligning with their dimension of fairness, while malpractice can be understood as a negation of the Freedom dimension.

number denotes a higher IPEI. We then weight each item by the component loadings derived from the PCA and build a summative index (see OECD, 2008). Like all following continuous measures, the index is then rescaled to range from 0 (here denoting low IPEI) to 1 (high IPEI).

The two main independent variables are political party support and anti-authoritarian values. For *party support*, we code respondents as winners or losers according to whether they support the party or coalition of parties in power or those in the opposition, respectively, at the time of the survey.⁴ We use party position in power rather than the overall number of votes or seats gained because this indicator is more comparable across different electoral and government systems. Moreover, supporters of a party with the most votes but which remains in the opposition are, if anything, more likely to feel as losers of an election.

Anti-authoritarian values are operationalized with the survey items from the WVS' Democracy–Autocracy Preference (DAP) scale (see Inglehart & Welzel, 2005), as they measure most closely respondents' underlying democratic values per se and hence how involved they may be in evaluating the integrity of democratic processes.⁵ For each item in the scale, the survey asks:

⁴ For lack of a question on retrospective party support asking who the respondent voted for in the last election, we use the WVS prospective question V228, reading “If there were a national election tomorrow, for which party on this list would you vote?” The implication of the question wording for the analysis at hand is discussed in the conclusion.

⁵ An alternative indicator, the assessment of “how democratically is your country being governed today” has been demonstrated to be a measure of support for the output of the democratic system rather than for its principles (Linde and Ekman, 2003). Another alternative indicator, respondents' assessment of essential characteristics of democracy, neither gauges democratic values but rather knowledge or understanding of democratic processes (see Cho, 2014; Norris, 2011; Welzel & Moreno, 2014). For an analysis of the link between understanding of democracy and electoral fairness, see Mattes, Mujani, Liddle, Shi & Chu (2015). A final alternative indicator which may be able to gauge the importance of electoral integrity to the respondent are the questions V228J and K on whether and to what extent the respondent thinks that “honest elections play an important role in deciding whether you and your family are able to make a good living” and “in whether or not this country develops economically”. While self-interest as presented by this instrumental perspective of democracy is also an indicator of attitude involvement according to Boninger et al. (1995), we would argue that the extrinsic motivation presented by material factors does not provide as strong a basis for attitude involvement as the intrinsic motivation presented by democratic values. Moreover, the measurement is highly skewed as the vast majority of respondents indicate that honest elections are very important. Nevertheless, we conducted a robustness check with these items and found similar results to those presented here.

“I’m going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country?”

- a) Having a strong leader who does not have to bother with parliament and elections;
- b) Having experts, not government, make decisions according to what they think is best for the country;
- c) Having the army rule;
- d) Having a democratic political system.

Responses are coded from “very good” (1) to “very bad” (4). A PCA shows that items a–c fall into a consistent index (Table A2, online appendix). Our analysis is consistent with that by Ariely and Davidov (2011) who find that combining the four items into one model is not valid, and we hence drop the question on the democratic political system from further analysis. We invert the coding of the three remaining items to measure anti-authoritarian values, weight them by their component loadings, sum them to an index, and rescale them to lie between 0 and 1, with 0 denoting weak anti-authoritarian values (or support of authoritarian forms of government) and 1 denoting strong anti-authoritarian values.

We also include a number of controls for factors that should affect the relationship between party support, anti-authoritarian values, and perceptions of electoral integrity. The motivated reasoning-based perspective proposed above focuses on individuals’ information-processing abilities, suggesting that information consumption on political issues matters (see also Coffé, 2016). Following either the accuracy or the directionality hypothesis, mediavores may have a more or less accurate IPEI: it may be more accurate because they are better informed, and it

may be less accurate because of biased information processing. Including media attention allows to control for both possibilities when examining the convergence or divergence of IPEI between winners and losers. Respondents were asked how often they use daily newspapers, TV news, radio news, or the internet to obtain information about what is going on in the country. We aggregate all four items into an index of *media attention*, weighted by factor loadings from a factor analysis, and rescale it such that it ranges from 0 (no information source ever used) to 1 (all sources used on a daily basis). We complement the measure of media attention with one of *political interest*, a binary variable indicating whether respondents are not at all or not very interested in politics, as opposed to very or somewhat interested.⁶

Perceptions of electoral integrity may be affected not only by indirect experiences of the electoral process via the media but also by more direct experiences of malpractice during the elections (see also Kerr, 2013). To account for this we include two more items from the WVS electoral integrity battery: how often voters are *bribed* or *threatened* with violence at the polls. Since voters themselves are the objects of violations of electoral integrity, it is likely that their answer reflects their own experience or the observations of their local environment rather than just what is reported in the media. We include both items as dichotomous variables, with the conjoint of “not at all” and “not often” as reference category.

Finally, we account for *socio-demographic background*. Klassen (2014) found that in general, older, male, and wealthier respondents are more likely to perceive elections to be honest than younger, female, and poorer respondents. The effect of education, in contrast, is more mixed: while in liberal democracies, better educated respondents are more likely to perceive elections

⁶ Using the original four-category coding does not alter the results.

to be honest, in less developed democracies they are more likely to perceive electoral malpractice. We include all four socio-demographic variables in the analysis: age is included as log; gender is a binary variable with female as the base category; income is included as the income decile to which respondents allocate themselves; and education is a nine-category variable ranging from no formal education to university degree, here treated as continuous variable. Descriptive statistics for all individual-level variables are listed in Tables 1 and 2.

[Tables 1 and 2 about here]

Context variables

Beyond individual-level variables we also consider the country context, especially since the WVS includes a wide variety of countries. In addition to the level of socio-economic development, the following country-level factors have been argued to affect the winner–loser gap in individual perceptions of electoral integrity: the actual level of electoral integrity, regime stability, proportionality of the electoral system, and freedom of the press (e.g. Anderson et al., 2005; Birch, 2008; Coffé, 2016). Since a variance component analysis (VCA) of the country-level variables shows that only electoral integrity, freedom of the press, and socio-economic development are significant indicators of IPEI, we limit our discussion to these variables here.⁷

A measure of *electoral integrity* is provided by the Perception of Electoral Integrity Index (PEI; Norris, Martínez i Coma, Nai & Grömping, 2016). The PEI index is built upon a survey, administered to country experts immediately following the national elections in the respective country. The experts are asked to evaluate the extent to which the different stages of the electoral process meet international standards, including nearly identical questions to those asked

⁷ For the VCA, see Table A3, online appendix.

in the WVS. While, in contrast to the WVS, the expert survey refers to a specific election and in some countries has been conducted only after the WVS, it is a useful indicator of general electoral integrity in this paper: a comparison of the PEI index with other measures of electoral quality such as NELDA (National Elections across Democracy and Autocracy) and IEM (Index of Electoral Malpractice) shows strong positive correlations (Norris, 2013a). Moreover, as data collection for both the WVS and the PEI data occurred in roughly the same time period (2010–2014 and 2012–2016, respectively) it is likely that both survey and expert respondents refer to the same events. We use the summary indicator “PEIIndexi”, rescaled to range from 0 to 1, with 1 denoting higher electoral integrity according to country experts.⁸

Second, we include media freedom as a control variable at the country level. Countries with identical levels of electoral integrity but differing levels of media freedom should see differences in the perceptions of electoral integrity among citizens: citizens who are able to inform themselves about the conduct of the elections are more likely to know of violations of integrity than those in countries where the media is not free to report and any violations are covered up. We use the measure of access to unbiased media in the year 2012 as reported in the Varieties of Democracy dataset (variable “v2meaccess”; Coppedge et al., 2015) since this is the latest year for which data is available across the board and also the year in which the majority of elections and survey data collection took place.

[Table 3 about here]

⁸ We use the summary indicator rather than only the items that were covered in the WVS electoral integrity index to account for the fact that the IPEI items refer to the country’s election in general while the PEI refers to a specific election in which the individual indicators may have diverged from the overall trend. The summary indicator is more likely to reflect the overall trend. This is supported by the index’s strong positive correlation with the other measures of electoral quality. Overall, however, the results are substantively similar no matter the PEI indicator used.

Finally, countries rated higher in socio-economic development tend to have a more strongly professionalized press and a higher percentage of the population who tunes into the news. We use the GDP per capita purchasing power provided in the PEI data, from the year of each respective election. Like all other continuous measures, it was rescaled to lie between 0 (here low GDP) and 1 (high GDP). Table 3 presents descriptive data for the countries included in the analysis. Of all countries with data on IPEI in the WVS, we had to exclude Lebanon, Libya, and Singapore for lack of either individual- or country-level data, leaving us with 29 countries.⁹

Analysis

The interaction between party support and values

We combine the individual- and country-level variables into multi-level linear regression models.¹⁰ Table 4 shows the results of two models, one with and one without the inclusion of anti-authoritarian values and their interaction with political support. With two exceptions, both models provide very similar results. In both, income and education are not significant factors for individual perceptions of electoral integrity, but they show that older, female, better informed, and politically interested respondents generally evaluate electoral integrity more positively than others do. Respondents who indicate that voters are often or very often bribed evaluate electoral integrity to be lower, while those who indicate that voters face violent threats, curiously, do the opposite. The main difference between the models is in the model fit Ω^2 : Model 0 without anti-authoritarian values fits the data slightly, but significantly ($p < 0.001$),

⁹ Lebanon does not provide a winner–loser measure in the WVS; there is little cross-national data available for Singapore; and Libya is so far not covered in the PEI dataset.

¹⁰ All data analysis is conducted using *R* (R Core Team, 2015). For the multilevel analyses we use the package *lme4* (Bates, Maechler, Bolker, & Walker, 2015).

worse than Model 1 with anti-authoritarian values, which suggests that perceptions of electoral integrity do indeed differ according to one's values.

[Table 4 about here]

The effects of the main variables of interests – party support, anti-authoritarian values, and their interaction – cannot be deduced from the table (Brambor, Clark & Golder, 2006). Instead, Figures 3 and 4 illustrate the direction and size of the interaction effect for Model 1. Figure 3 shows that the effect of anti-authoritarian values differs significantly between losers (0) and winners (1). For losers, the strength of anti-authoritarian values is significantly negatively related to IPEI: the stronger the respondents are opposed to authoritarian forms of government, the worse their evaluation of electoral integrity. For winners, in contrast, the relation is reversed: the stronger the respondents are opposed to authoritarian forms of government, the better their evaluation of electoral integrity. Figure 4 shows the estimated coefficient of winning on IPEI depending on the strength of anti-authoritarian values: the stronger these values, the stronger the marginal effect of winning on individual perceptions of electoral integrity. At the high end of the scale, the effect of winning is at least almost twice (compare the inner confidence intervals at each extreme) and up to five times (compare the outer confidence intervals at each extreme) as strong as among those supporting authoritarian forms of government at the low end of the scale. The bars show the existence of relatively large shares of respondents at each extreme.¹¹ Overall, then, the figures demonstrate that anti-authoritarian commitment does not ensure a more even-handed evaluation of the actual situation; if that were the case, we

¹¹ One may argue that anti-authoritarian values are not randomly distributed but clustered in certain regime types, such that the outcome may be driven by people in countries with very low levels of electoral integrity: if anti-authoritarians win there, they are going to evaluate the elections very positively. In addition to including PEI in the multi-level models, we also ran a model without such electoral autocracies. The results are substantively the same as in the model including all countries.

would observe a convergence of perceptions on levels of electoral integrity among winners and losers towards the high end of the scale.

[Figures 3 and 4 about here]

Accuracy in perceptions of electoral integrity

While these findings support the motivated reasoning perspective, they cannot yet adjudicate between “sore loser” explanations that see losers to be less accurate, an alternative “uncritical winners” explanation that sees winners to be less accurate, or the possibility that winners and losers have equally inaccurate perceptions of electoral integrity. Although such a question is difficult to answer with only cross-sectional data at hand, we may get first indications of who, on average, tends to be more accurate in their assessment of electoral integrity by looking at the available data from different perspectives.

First, we can compare whether winners or losers align more closely with expert evaluations of electoral integrity. Recall our measure of the latter: evaluations of the electoral process elicited from country experts immediately following the elections. On average, country experts likely have a more informed and less biased view of electoral integrity than citizens. While expert survey data is far from perfect, a detailed analysis of the expert PEI dataset shows that, in contrast to the individual-level data, it is not plagued by systematic bias in evaluations of electoral integrity (Martínez i Coma & van Ham, 2015). Moreover, as already mentioned, the expert measure correlates strongly with other measures of electoral quality. We therefore may use it as baseline against which to compare citizens’ perceptions.

We repeat the above analyses for winners and losers separately, without the interaction, and compare models with and without the inclusion of the expert PEI index (Table 5). Where the included term improves the model fit, we may say that citizen views are similar to those of

experts and hence more likely to be accurate. Table 5 shows that, for winners, the addition of PEI does not improve model fit: the between-country variance of models 2 and 3 remains at the same level, confirmed by an ANOVA ($p=0.418$). That is, actual levels of electoral integrity do not affect winners' evaluations. For losers, on the other hand, the addition of PEI in model 5 reduces the between-country variance significantly, albeit on a low level ($p=0.094$). That is, if we hold experts' PEI as an objective benchmark for electoral integrity, the results suggest that, overall, losers are more accurate in their perceptions of electoral integrity than winners.

[Table 5 about here]

A second way to attain an indication of accuracy is by comparing partisans to non-partisans. Beasley and Joslyn (2001) show that voters, as compared to non-voters, are more likely to change their attitudes following elections, which suggests that directional bias is indeed absent or at least significantly less pronounced among non-voters, and that they may hence serve as benchmark of perceived electoral integrity in society. We counted everyone as non-partisan, or undecided, who answered “don't know” to the question of party support. Figures 5 and 6 present the interaction effects for winners and losers as compared to undecided respondents. Figure 5 shows that the effect of anti-authoritarian values among winners differs substantially from that among the undecided, while the latter overlaps completely with the confidence intervals of the effect among losers. Figure 6 demonstrates accordingly that the effect of losing does not differ significantly from that of being undecided, no matter the strength of anti-authoritarian values: the confidence intervals enclose 0 for all values of anti-authoritarian values. Winning, in contrast, have a significantly positive effect on IPEI, and the effect increases the stronger the commitment to anti-authoritarian values. Together, assuming that undecided respondents and country experts are indeed less likely to be biased in their perceptions, both analyses suggest to favour the “uncritical winner” hypothesis over the “sore loser” hypothesis with regard

to electoral integrity, with winners more likely to excuse – or less likely to notice – imperfections in the electoral process.

[Figures 5 and 6 about here]

Discussion and conclusion

The legitimacy of the electoral process is crucial for the stability and consolidation of democracy, yet to date few studies have examined the determinants of individual-level perceptions of electoral integrity in greater depth. This paper examined the interaction effect of political party support and anti-authoritarian values, hypothesizing that the latter should reduce the directional bias stemming from the former and hence increase accuracy. Using WVS data, we did find an interaction effect, but rather than a convergence among electoral winners and losers we found a polarization: among winners, one's perceptions of electoral integrity increase the more one opposes authoritarian alternatives to democratic rule, while among losers, they decrease. Further preliminary tests suggested that the interaction is mainly driven by overly positive perceptions of electoral integrity among winners.

Linking the findings back to the theories of motivated reasoning, they suggest that the directional, prior-attitude effect of party support is not countered by a stronger commitment to the issue at stake and hence a stronger incentive to obtain information: instead of increasing accuracy, involvement increases the confirmation or disconfirmation bias in information processing. This conclusion aligns with the findings by Taber and Lodge (2006) with regard to political sophistication: the authors found that, in experimental studies on the evaluation of political beliefs, attitude polarization is strongest among the political knowledgeable as they possess more information and a greater capacity to counter-argue disconfirming evidence.

One might argue that the relationship is indeed the other way around, with values and perceived electoral integrity influencing vote choice, rather than values and vote choice influencing perceptions of electoral integrity. In the data at hand, the question on party support is prospective, not retrospective, asking who the respondent would support if there were elections tomorrow, and not who the respondent voted for in the last elections. Thus, alternatively to our argument, a voter who belonged to the electoral winners in the last election but who then came to the conclusion that the process was not fair and, due to her strong anti-authoritarian values, now opposes the government, would be wrongly counted in the loser camp. Conversely, a voter who belonged to the losers in the last elections but rated the process to be fair and therefore now supports the government would be wrongly counted in the winner camp. While we cannot completely rule out this possibility with the data at hand, it is rather unlikely.¹² For it to hold, electoral support would need to be very fluid, yet the literature attests to the relative stability of party support (Schickler & Green, 1997). In particular, any change in vote choice is less likely to be affected by perceptions of electoral integrity rather than, say, more substantive disagreements with policy positions. Moreover, research has shown conceptual differences between assessment of specific governments and support for political institutions (Norris, 2011) and specifically confidence in the electoral process (Atkeson et al., 2015). Nevertheless, longitudinal approaches to examining the effect of campaigns and the aftermath of elections on procedural fairness are needed to provide clarification.

While electoral processes may not always produce as clear-cut a winner–loser distinction as deployed here, election campaigns more or less by definition involve a degree of polarization.

¹² As far as we know the question cannot be conclusively addressed with other cross-sectional data either: the prospective question is predominant in comparative survey research on perceptions of electoral integrity (e.g. Birch, 2008; Moehler, 2009; McAllister & White, 2015). We are aware of only single-country studies that use a retrospective question (e.g. Wolak, 2014; Cantú & García-Ponce, 2015; Cho & Kim, 2015).

If this polarization translates not only into differences in outcome satisfaction among winners and losers but also into differences in perceived procedural fairness, it may further undermine the legitimacy of the electoral process, and with that of democracy per se. This is underlined by findings in Tyler (2006) and Levi, Sacks & Taylor (2009), who link procedural fairness and political legitimacy in other institutional contexts, too. Gangl (2003) and Boda and Medve-Bálint (2015) show that procedural fairness in fact outweighs government's performance when it comes to determining institutional legitimacy. Increasing levels of perceived electoral integrity and reducing the gap between electoral winners and losers is hence paramount, and by linking perceptions of electoral integrity in a cognitive-motivational model to prior attitudes and information-processing strategies, this paper suggests that reduced polarization in the election campaign together with an increased transparency of the electoral process could help achieve this.

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Figures and Tables

Figure 1: Competing hypotheses linking values to perceptions of electoral integrity

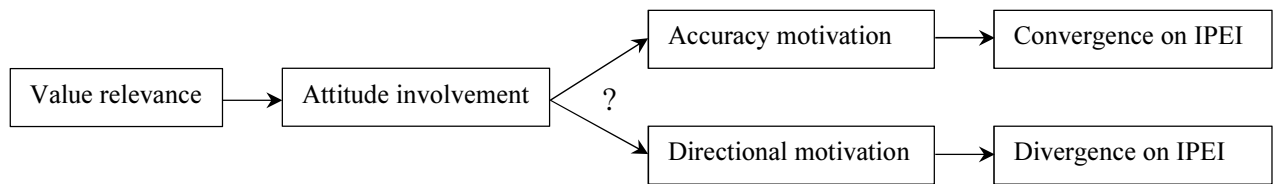
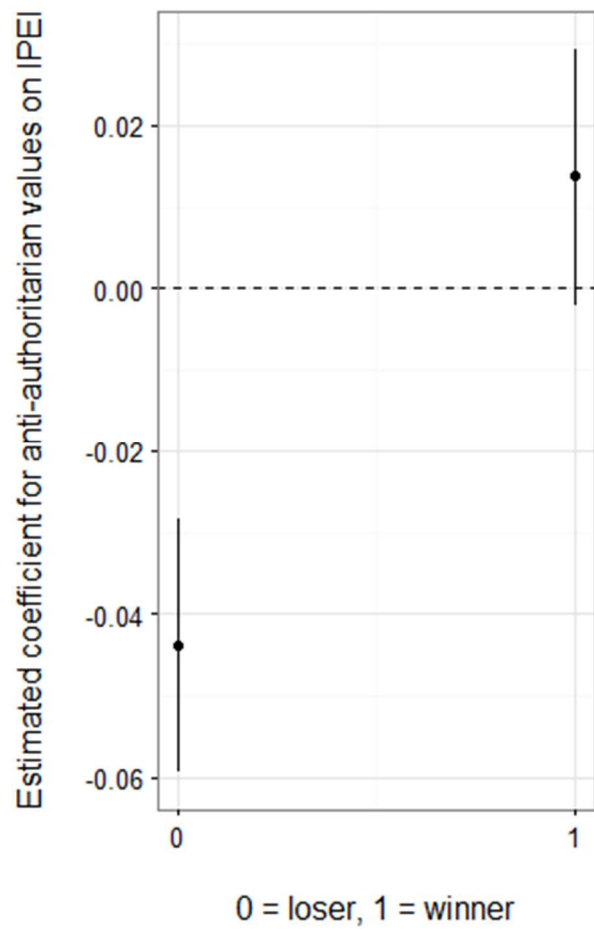


Figure 2: Expected marginal effects of winning and losing on perceptions of electoral integrity

<i>Hypothesis</i>	sore losers	accuracy		directionality	
		anti-authoritarian	authoritarian	anti-authoritarian	authoritarian
<i>Partisanship</i>					
winners	+	0	+	+	0
losers	-	0	-	-	0

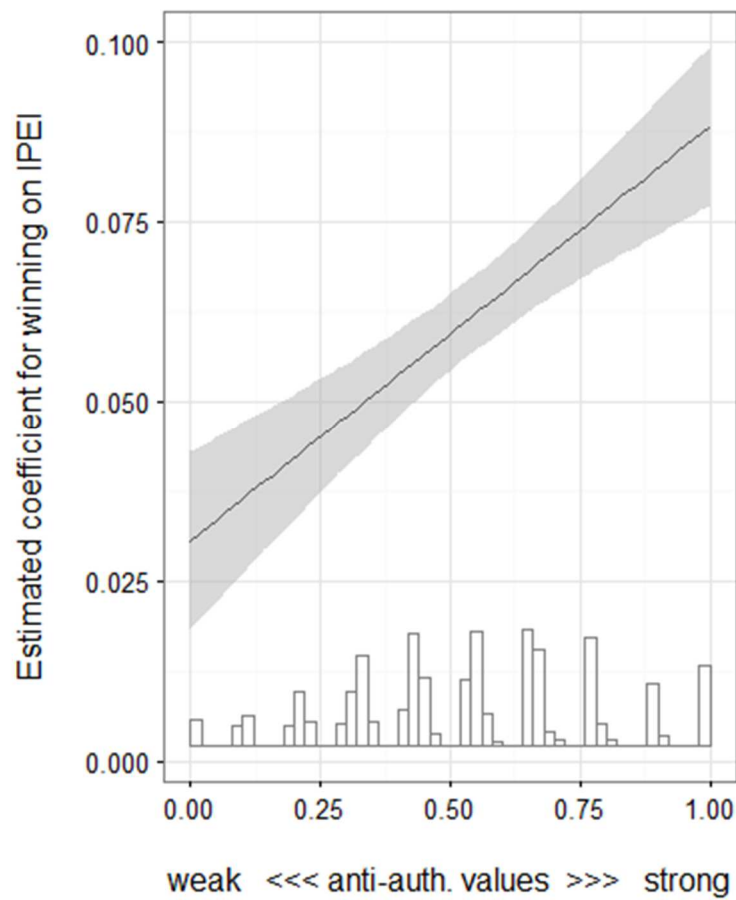
Note: The signs illustrate the expected marginal effects of winning or losing on individual-level perceptions of electoral integrity when looking at directional bias only (the sore loser hypothesis) and according to the accuracy and directionality hypotheses. A zero denotes that winners and losers should not differ significantly in their perceptions of electoral integrity (convergence) while a plus and minus denote that there should be significant differences according to party support (divergence).

Figure 3: Effect of anti-authoritarian values on IPEI among losers and winners



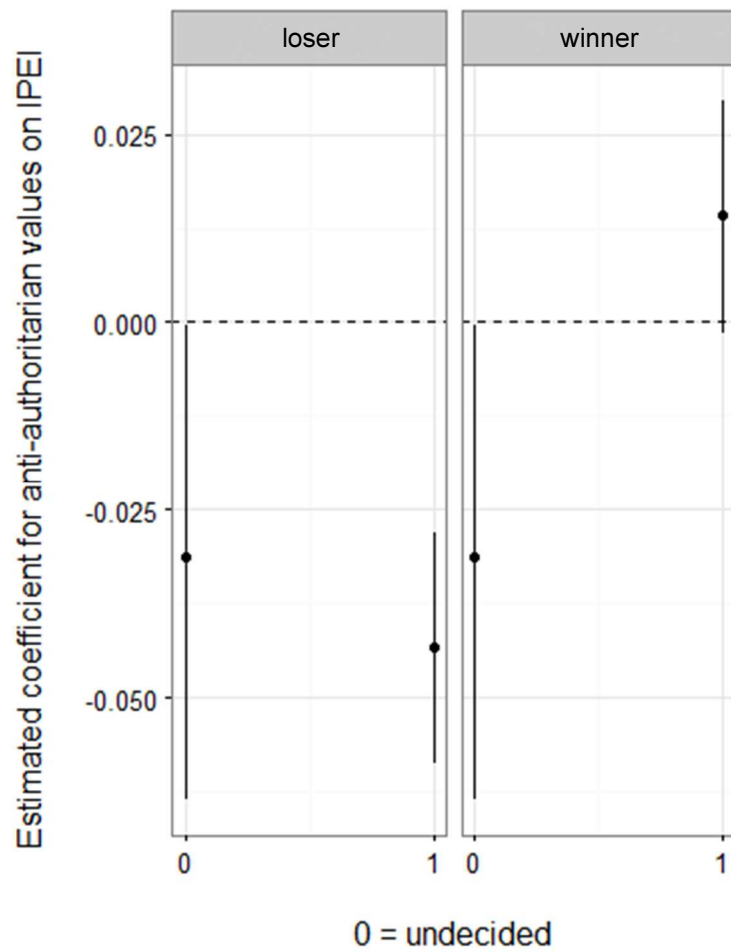
Notes: Dots represent the estimated coefficients of anti-authoritarian values β on IPEI among losers (0) and winners (1) in Model 1 (Table 4), while whiskers indicate 95%-confidence intervals. Figure produced with *R* package *interplot* (Solt & Hu, 2016).

Figure 4: Effect of winning on IPEI depending on anti-authoritarian values



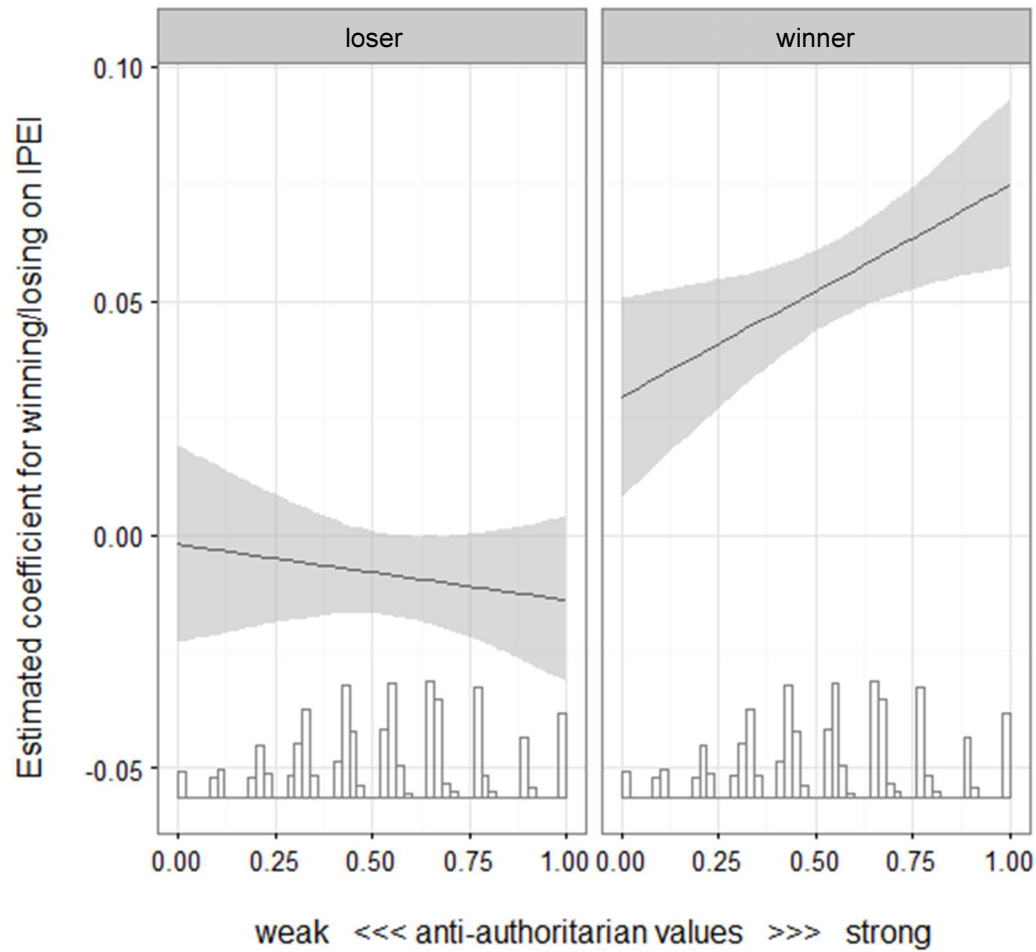
Notes: The line represents the estimated coefficient β of winning on IPEI for different levels of anti-authoritarian values in Model 1 (Table 4), while the grey ribbons indicate 95%-confidence intervals. Bar height is proportional to the number of observations along the anti-authoritarian values spectrum. Figure produced with *R* package *interplot* (Solt & Hu, 2016).

Figure 5: Effect of anti-authoritarian values on IPEI among losers and winners, compared to undecideds



Notes: Dots represent the estimated coefficients of anti-authoritarian values β on IPEI among undecideds (0), losers (1, left), and winners (1, right) for a model of IPEI as specified in Table 4 with Undecided as reference category in party support, while whiskers indicate 95%-confidence intervals. Figure produced with *R* package *interplot* (Solt & Hu, 2016).

Figure 6: Effect of losing and winning on IPEI depending on anti-authoritarian values, compared to being undecided



Notes: The line represents the estimated coefficient β of losing (left) and winning (right) on IPEI for different levels of anti-authoritarian values for a model of IPEI as specified in Table 4 with Undecided as reference category in party support, while the grey ribbons represent 95%-confidence intervals. Bar height is proportional to the number of observations along the anti-authoritarian values spectrum. Figure produced with *R* package *interplot* (Solt & Hu, 2016).

Table 1: Descriptive statistics of individual-level continuous variables

<i>continuous variables</i>	<i>valid obs.</i>	<i>mean</i>	<i>min</i>	<i>max</i>	<i>se</i>
IPEI	41395	0.60	0	1	0.001
anti-authoritarian values	37999	0.54	0	1	0.001
media attention	41008	0.63	0	1	0.001
age	41213	41.69	18	98	0.082
education	40898	5.64	1	9	0.011
income	40684	4.79	1	10	0.011

Note: Data from WVS (2016). Based on countries covered by both the IPEI battery in the WVS and the PEI dataset minus Singapore (n = 29 countries) and limited to respondents of voting age (21 years or older in Malaysia, 18 years or older everywhere else).

Table 2: Descriptive statistics of individual-level categorical variables

<i>categorical variables</i>		<i>valid obs.</i>	<i>frequency</i>	<i>proportion</i>
party support	winner	34316	14481	0.42
	loser		15771	0.46
	undecided		4064	0.12
interest	not interested	41245	22736	0.55
	interested		18509	0.45
bribes	not (at all) often	41395	21039	0.51
	(very) often		20356	0.49
violence	not (at all) often	41393	28730	0.69
	(very) often		12663	0.31

Note: Data from WVS (2016). Based on countries covered by both the IPEI battery in the WVS and the PEI dataset minus Singapore (n = 29 countries) and limited to respondents of voting age (21 years or older in Malaysia, 18 years or older everywhere else).

Table 3: Descriptive statistics of country-level variables

<i>country</i>	<i>anti-authoritarian</i>			<i>unbiased media access</i>	<i>GDP</i>
	<i>IPEI</i> (mean)	<i>values</i> (mean)	<i>PEI</i>	(share of population)	(pc ppp in US\$)
Algeria	0.50	0.69	0.58	0.38	5200
Australia	0.76	0.71	0.77	0.95	50130
Azerbaijan	0.52	0.61	0.36	0.23	6440
Brazil	0.60	0.43	0.76	0.76	12020
Chile	0.63	0.63	0.86	0.80	12350
Colombia	0.49	0.49	0.74	0.48	7140
Ecuador	0.59	0.52	0.68	0.58	4900
Estonia	0.66	0.63	0.86	0.98	18390
Georgia	0.51	0.61	0.72	0.76	3170
Germany	0.89	0.70	0.89	0.98	46480
Ghana	0.61	0.68	0.73	0.59	1260
India	0.62	0.32	0.74	0.71	1500
Kazakhstan	0.56	0.54	0.45	0.34	11705
Kyrgyzstan	0.51	0.43	0.72	0.60	1220
Malaysia	0.63	0.50	0.54	0.49	9080
Mexico	0.58	0.46	0.73	0.48	9185
Netherlands	0.73	0.66	0.87	0.96	53530
Nigeria	0.53	0.50	0.71	0.55	2700
Pakistan	0.52	0.45	0.66	0.74	1150
Peru	0.47	0.50	0.69	0.60	6360

Philippines	0.62	0.49	0.63	0.80	3070
Poland	0.68	0.57	0.82	0.96	13490
Romania	0.52	0.39	0.64	0.82	8670
South Africa	0.60	0.44	0.83	0.73	7640
Taiwan	0.68	0.50	0.85	0.84	22294
Thailand	0.66	0.62	0.58	0.86	5610
Ukraine	0.48	0.51	0.63	0.74	3330
Uruguay	0.67	0.64	0.89	0.92	13910
Zimbabwe	0.51	0.65	0.53	0.48	690

Notes: IPEI from World Values Survey (2016); PEI and GDP from Norris et al. (2016); media access from Coppedge et al. (2015).

Table 4: Multilevel linear regression results for IPEI

	<i>Model 0</i>	<i>Model 1</i>
β_0 (Intercept)	0.37 ***	0.39 ***
β_1 income	-0.00	-0.00
β_2 gender (female)	0.01 *	0.01 *
β_3 log(age)	0.03 ***	0.03 ***
β_4 education	0.00	0.00
β_5 media attention	0.05 ***	0.05 ***
β_6 interest (yes)	0.02 ***	0.02 ***
β_7 bribes (often)	-0.04 ***	-0.04 ***
β_8 threats (often)	0.01 **	0.01 **
β_9 party support (winner)	0.06 ***	0.03 ***
party support (undecided)	0.01	0.00
β_{10} anti-authoritarian values		-0.04 ***
β_{11} media access	0.13	0.13
β_{12} GDP pc ppp	0.17**	0.18 **
β_{13} PEI	0.07	0.07
β_{14} winner x anti-authoritarian values		0.06***
undecided x anti-authoritarian values		0.01

σ^2	0.042	0.042
$\tau_{00, \text{countries}}$	0.003	0.003
$N_{\text{countries}}$	29	29
$ICC_{\text{countries}}$	0.058	0.059
Observations	27403	27403
Ω^2	.210	.211

Notes: * $p < .05$ ** $p < .01$ *** $p < .001$. Table produced with *R* package sjPlot (Lüdecke, 2016). Model 0 is the same as Model 1, excluding anti-authoritarian values.

Model 1:

$$\begin{aligned}
 IPEI_{ij} = & \beta_0 + \beta_1 \text{income}_{ij} + \beta_2 \text{gender}_{ij} + \beta_3 \log(\text{age}_{ij}) + \beta_4 \text{education}_{ij} + \\
 & \beta_5 \text{mediaattention}_{ij} + \beta_6 \text{interest}_{ij} + \beta_7 \text{bribes}_{ij} + \beta_8 \text{threats}_{ij} + \\
 & \beta_9 \text{winner}_{ij} + \beta_{10} \text{anti-authoritarianvalues}_{ij} + \beta_{11} \text{mediaaccess}_j + \\
 & \beta_{12} \text{GDP}_j + \beta_{13} \text{PEI}_j + \beta_{14} (\text{partysupport}_{ij} \times \text{anti-authoritarianvalues}_{ij}) + u_j + e_{ij}
 \end{aligned}$$

β_n are the regression coefficients, u_j is the effect of country j , and e_{ij} is the residual variation of individual i in country j . Difference in model fit is significant at $p < 0.001$.

Table 5: Multilevel linear regression results for IPEI among winners and losers separately

		winners		losers	
		<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>
β_0	(Intercept)	0.42 ***	0.46 ***	0.31 ***	0.23 **
β_1	income	0.00	0.00	-0.01	-0.01
β_2	gender (female)	-0.00	-0.00	0.01 *	0.01 *
β_3	log(age)	0.04 ***	0.04 ***	0.01	0.01
β_4	education	0.01	0.01	0.00	0.00
β_5	media attention	0.06 ***	0.06 ***	0.06 ***	0.06 ***
β_6	interest (yes)	0.03 ***	0.03 ***	0.01 **	0.01 **
β_7	bribes (often)	-0.02 ***	-0.02 ***	-0.04 ***	-0.04 ***
β_8	threats (often)	0.02 ***	0.02 ***	0.01	0.01 *
β_9	anti-authoritarian values	0.00	0.00	-0.03 ***	-0.03 ***
β_{10}	media access	0.16 *	0.22 *	0.30 ***	0.19
β_{11}	GDP pc ppp	0.16 **	0.18 **	0.16 **	0.12 *
β_{12}	PEI		-0.13		0.28
σ^2		0.041	0.041	0.041	0.041
$\tau_{00_countries}$		0.003	0.003	0.004	0.004
$N_{countries}$		29	29	29	29

ICC _{countries}	0.079	0.077	0.091	0.083
Observations	13195	13195	14208	14208
Ω^2	.185	.185	.252	.252

Notes: * p<.05 ** p<.01 *** p<.001. Table produced with R package sjPlot (Lüdtke, 2016).

Models 2 and 3 estimate IPEI_{ij} for electoral winners only, models 4 and 5 for electoral losers only.

$$\text{IPEI}_{ij} = \beta_0 + \beta_1 \text{income}_{ij} + \beta_2 \text{gender}_{ij} + \beta_3 \log(\text{age}_{ij}) + \beta_4 \text{education}_{ij} + \beta_5 \text{mediaattention}_{ij} + \beta_6 \text{interest}_{ij} + \beta_7 \text{bribes}_{ij} + \beta_8 \text{threats}_{ij} + \beta_9 \text{anti-authoritarianvalues}_{ij} + \beta_{10} \text{mediaaccess}_j + \beta_{11} \text{GDP}_j + \beta_{12} \text{PEI}_j + u_j + e_{ij}.$$

β_n are the regression coefficients, u_j is the effect of country j , and e_{ij} is the residual variation of individual i in country j . Blank cells indicate that the parameter is not included in the model. Significance of difference in model fit between models 2 and 3: $p=0.418$, between models 4 and 5: $p=0.094$.

Online Appendix

Table A1: Principal Component Analysis loadings

		Component	
		1	2
<i>Electoral malpractice</i>	Voters are bribed	.776	-.114
	Rich people buy elections	.745	-.120
	Voters are threatened with violence at the polls	.691	-.074
	TV news favours the governing party	.605	.041
	Opposition candidates are prevented from running	.605	-.021
<i>Electoral integrity</i>	Journalists provide fair coverage of elections	.098	.668
	Voters are offered a genuine choice in the elections	.023	.662
	Election officials are fair	-.165	.769
	Votes are counted fairly	-.242	.685

Principal Component Analysis with Varimax Rotation. Kaiser-Meyer-Olkin measure of sampling adequacy: .772.

Table A2: Principal Component Analysis loadings

	1
Having a strong leader who does not have to bother with parliament and elections	.757
Having experts, not government, make decisions according to what they think is best for the country	.752
Having the army rule	.684
Having a democratic system	-.062
Principal Component Analysis with Varimax Rotation. Kaiser-Meyer-Olkin measure of sampling adequacy: 0.612.	

Variance Component Analysis

In addition to the country-level measures perceptions of electoral integrity (PEI), access to unbiased media, and GDP per capita, we tested the effect of two further factors: regime stability (captured by the variable “durable” from the Polity 2 data, also available in the PEI dataset) as well as disproportionality of the electoral system (captured by the Gallagher Index of Disproportionality, indicating the difference between the percentage of votes and the percentage of parliamentary seats received; see Gallagher, 1991).¹³

We examined whether all context variables are informative for individual perceptions of electoral integrity by comparing the unexplained between-country variances between multi-level models without and with the separate country-level variables. Table A3 shows that only media access, PEI, and GDP contribute significantly to the reduction of between-country variance in IPEI, both individually and taken together. Regime stability and the degree of disproportionality, in contrast, do not add significantly to the explanation and were hence excluded from the analyses.¹⁴

Bibliography

Gallagher, M. (1991). Proportionality, Disproportionality and Electoral Systems. *Electoral Studies*, 10, 33–51.

¹³ The majority of GID values was taken from Michael Gallagher’s own website (http://www.tcd.ie/Political_Science/staff/michael_gallagher/). We complemented the data for the remaining countries with information from the Political Handbook of the World (Lansford, 2015) as well as election reports in the journal *Electoral Studies*, always using data from the latest election before or during the field phase of the WVS. For the Philippines, where about 20% of the seats are not assigned via the main electoral process, the GID was computed referring only to the 80% of seats elected in the primary election.

¹⁴ While regime stability by itself is still significant, it does not add any explanatory power when included together with PEI, GDP, and media access ($p=0.37$).

Gallagher, M. (2015). *Election Indices Dataset*. Retrieved May 02, 2016, from http://www.tcd.ie/Political_Science/staff/michael_gallagher/ElSystems/index/php.

Lansford, T. (Ed.) (2015). *Political Handbook of the World*. Washington D.C.: CQ Press.

Table A3: Explanatory power of country-level variables

<i>context variable(s)</i>	σ_j^2	<i>p</i>
(none)	0.008	
PEI	0.004	< 0.001
media access	0.004	< 0.001
GDP	0.003	< 0.001
regime stability	0.006	0.022
GID	0.007	0.426
PEI, GDP, media access	0.002	< 0.001
PEI, GDP, media access, regime stability	0.002	< 0.001

Notes:

σ_j^2 = between-country variance of individual-level model with contextual effects added individually, e.g.:

$$\begin{aligned} \text{IPEI}_{ij} = & \beta_0 + \beta_1 \text{income}_{ij} + \beta_2 \text{gender}_{ij} + \beta_3 \log(\text{age}_{ij}) + \beta_4 \text{education}_{ij} + \beta_5 \text{mediaattention}_{ij} \\ & + \beta_6 \text{interest}_{ij} + \beta_7 \text{bribes}_{ij} + \beta_8 \text{threats}_{ij} \\ & + \beta_9 \text{winner}_{ij} + \beta_{10} \text{anti-authoritarianvalues}_{ij} + \beta_{11} (\text{winner}_{ij} \times \\ & \text{anti-authoritarianvalues}_{ij}) + \beta_{12} \text{PEI}_j + u_j + e_{ij} \end{aligned}$$

p = Significance of difference between σ_j^2 of the models with contextual effects and the one without, according to an ANOVA test.